

**PROCESS ANALYSIS AS A MEAN
TO EFFICIENT EDUCATIONAL
FOOTSTAMP PROGRAM**

**FINAL REPORT AND PROJECT
SUMMARY**

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**Contract Number 53-3198-7-18:
Process Analysis as a Means
to Error Reduction in the
Food Stamp Program**

**Final Report and
Project Summary**

by

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FINAL REPORT AND PROJECT SUMMARY

This report presents a summary of the activities and findings of the project **Process Analysis as a Means to Error Reduction in the Food Stamp Program**. The project goal focused on a systematic and exploratory effort to identify and quantify successful management initiatives which could improve the accuracy of State case processing for the Food Stamp Program. Accurate case processing was defined in the project as low levels of Food Stamp Program allotment dollar errors, either in terms of the proportion of State cases having incorrect dollar issuances (the **case error rate**), or the proportion of total State Food Stamp Program allotment dollars issued in error (the **payment error rate**). State error rate statistics are measured systematically by the National Integrated Quality Control System (NIQCS), which uses a standardized case review methodology to measure and report on State Quality Control (QC) case and payment error rates.

This report contains six sections. Section A provides an overview to the project by describing the project background and results. Section B describes the activities of Phase I and how the information collected in this Phase resulted in the development of the Error Controls Profile of effective error reduction strategies. Section C examines the design, methodology, and implementation of Phase II for the assessment of the Error Controls Profile and the Contingency Model. Section D describes the results of the Error Controls Profile activities of the three participating States. Section E relates the results of the econometric Contingency Model estimation and the development of the Lotus program. Finally, Section F presents conclusions from the project and considerations for interpretation of the findings.

A. OVERVIEW

The project operated under a two-phase structure which focused on collecting information about effective error reduction management initiatives, and investigating whether these initiatives can be transferred to assist States struggling with high or increasing error rates.

- o enter current State or local error rate data to permit the model to assess error reduction potential;
- o quantify an estimate of the impact of an error reduction management initiative by entering or changing the model's parameter values for that initiative; and
- o estimate the impact of a selected management initiative on the error rate and print an analysis report.

Several factors must be considered in understanding the estimated error reduction results in the project.

- o **All treatment sites reported changes as a result of project participation.** Measurable impacts in error reduction awareness, heightened morale, worker empowerment, renewed perspectives, and revitalized error reduction interest were substantively important outcomes.
- o **To be effective, Error Controls Profile factors must be implemented in a manner consistent with the error reduction characteristics documented in Phase I.** As was the case with Field Staff Commitment to Error Reduction in this project, deviations from the factor characteristics identified in Phase I compromised the error reduction potential.
- o **Effective implementation in one Error Controls Profile factor unavoidably launched activity under other factors.** The factors as documented in Phase I provided guidance for planning of an error reduction program. However, as evident in the experiences of this project, the factors themselves generated an environment and focus which naturally lead to enhancement of corrective action activity.
- o **The level of error reduction depended on who, how, and length of implementation.** The Error Controls Profile required the buy-in of all State and local staff, and the careful planning of an effective implementation. Additionally, the evaluation of error reduction success depended upon the timing of the impact measurement. For New York's well-implemented Training initiative, the project's relatively short implementation period is believed to be the central reason why the project did not capture training's error rate reduction impacts.
- o **The economic and social environment influenced error reduction outcomes.** The economic recession throughout the project's 1992 implementation period was suspected of diminishing error reduction

impacts, particularly in New York and West Virginia where the analysis found the economic climate to be more negatively affected.

- o **States should consider the Error Controls Profile and Contingency Model results as a first step in a new methodology to formalize error reduction modeling.** The parameters obtained in the project are specific to the States, activities, and circumstances in the treatment sites. Nonetheless, these error reduction parameters are the best data available to States at this time. FNS encourages State and local offices to investigate, refine, and customize these parameters to reflect more closely their own circumstances, and then to share with FNS and other States resulting changes in the predictive power of the model.

B. PHASE I ACTIVITIES

Phase I identified and researched States that had effectively reduced their Food Stamp Program error rates, or maintained low Food Stamp error rates. These error reduction structures and practices in the States were then compared in order to discover and synthesize any similarities in operations or management practices related to effective error rate performances.

1. ON-SITE STATE VISITS

To identify the universe of candidate States for study in Phase I, FNS used State NIQCS error rate data for 1982 through 1986. From an initial list of 23 States, MAXIMUS conducted telephone interviews with the FNS Regional Offices to obtain detailed information concerning the State corrective action structure. The telephone interviews used a standardized telephone interview guide, organized into topic areas. Based on the findings of these interviews, nine sites were selected for continued study using on-site visits:

- o **Alaska,**
- o **Arkansas,**
- o **California (two separate sites: -- Sacramento County and San Diego County),**
- o **Connecticut,**
- o **Kentucky,**

- o New Hampshire,
- o South Dakota, and
- o Utah.

To collect further details on the State error reduction operations, MAXIMUS conducted a telephone interview with each State, exploring the corrective action structure in detail. An additional telephone interview guide was developed for the State telephone calls. Each call with a State lasted one hour or longer and involved several key State staff persons. A major purpose of the telephone interviews was to develop on-site visit protocols and procedures. The findings of the State telephone interviews were formally presented to FNS for review, along with a description of the proposed State on-site protocol and methodology.

For each site visit, two MAXIMUS staff members spent three days on site at each State. In California, where two counties were selected as study sites, two MAXIMUS staff persons each spent one day with State-level staff, and either two or three days each with county-level staff of the two selected counties.

The on-site protocol consisted of 11 separate component parts, with each component targeting separate functions of the corrective action process:

- o Director/Administrator of the State Agency division in which the Food Stamp Program was based,
- o Food Stamp Program Specialist,
- o AFDC Program Specialist,
- o Policy Development function,
- o Quality Control function,
- o Corrective Action function,
- o Training function,
- o Field Coordination/Management function,
- o Regional Administrator/Manager function,
- o Local Office, and
- o Management Information function.

Exhibit 1 introduces the Error Controls Profile Model and summarizes the conclusions regarding the characteristics of these factors which impact error reduction. The nine Error Controls Profile factors of Exhibit 1 were judged to have a positive error reduction impact. For each factor, the exhibit describes those characteristics which were identified in the sites as essential to the effective implementation.

Exhibit 1 ELEMENTS OF THE ERROR CONTROLS PROFILE AND CHARACTERISTICS OF EFFECTIVE IMPLEMENTATION

1. Top Management Commitment to Error Reduction	
Accountability established	Error reduction is made part of the job of top level managers and subordinate manager, down to the supervisor (unit) level. Along with the responsibility at all levels of the organization goes the accountability for results. Mechanisms are set in place for regular performance monitoring.
Tone set by management	The commitment of top management is demonstrated by encouraging involvement of staff at all levels in error reduction planning and activities, being receptive to staff input, constantly paying attention to error rates, showing enthusiasm for error reduction activities, and communicating frequently about results – good or bad.
Personal involvement	This level of commitment is demonstrated by the direct involvement of agency top managers in the corrective action process, setting goals and performance expectations, constantly communicating concern for error reduction and prevention, and investing the resources necessary for the agency's corrective action program.
2. Field Staff Commitment to Error Reduction	
Personal investment/"buy-in"	Field staff is aware of, understands, and internalized the goals of the State's corrective action process
Accountability	Within the local office (or unit) the field manager (or supervisor) is given the tools and flexibility to manage the work and accepts responsibility for reducing or preventing errors, thus fixing accountability.
Involvement/being part of the process	Management solicits the active participation of staff at all levels in error reduction, error prevention, and formal corrective action processes. The staff is substantively involved in committees, meetings, plans, and activities related to corrective action.
Ownership	The "bottom-up" process involves field staff in developing corrective action plans and initiatives. The staff feels a sense of ownership of the initiatives and products, and therefore has a stake in the results.
Local office perspective/workability at the local level	The involvement of the local office staff in developing plans and initiatives tailored to the needs and realities of their offices ensures input from the individuals most knowledgeable about local office case processing.

Exhibit 1 (continued)
ELEMENTS OF THE ERROR CONTROLS PROFILE
AND CHARACTERISTICS OF EFFECTIVE IMPLEMENTATION

3. Corrective Action Structure and Responsibility
<p>Pervasiveness of activities</p> <p>The pervasiveness of corrective action organizations and processes may be defined as:</p> <ul style="list-style-type: none"> o "top-down coordination and support for Statewide corrective action activities, demonstrated through analysis and dissemination of error data, frequent communication about error rates and problems, and clear delineation of goals and expectations; o a "bottom-up" corrective action structure, such that the various levels of corrective action activities funnel into the State effort; o internalization of support for error reduction goals by local managers and staff; and o a focus on corrective action at the field level, which promotes field staff "ownership" of the corrective action process and products.
<p>Activities at all organizational levels</p> <p>Although many different organizations and processes may be used to develop, implement, monitor, and evaluate corrective actions, effective sites are characterized by active correction action organizations and activities down to the lowest (unit) level. Structures and practices, such as the following, are evidence of the active involvement of staff at all organizational levels:</p> <ul style="list-style-type: none"> o active participation of local office staff in State level and/or sub-State level Corrective Action Committees; o active involvement of all levels of staff in the development of Corrective Action Plans applicable to their own offices -- with those plans subsequently being incorporated into the plans of higher organizational levels; and o analyses and dissemination of information concerning error trends and causes, including use of supervisory and/or second party case review results, to develop and fine tune corrective action initiatives.
<p>Top management actively involved and showing interest</p> <p>The active involvement of top management in the State's corrective action program may be demonstrated in such diverse ways as:</p> <ul style="list-style-type: none"> o standardizing and disseminating Food Stamp Program policies and procedures to reduce errors; o providing the necessary training to meet error reduction needs; o establishing corrective action structures, processes, and standards, and providing visible support, including maintaining supervisory and staff focus on error reduction and providing motivation to achieve results; o sharing responsibility for error reduction and holding subordinate managers and local staff accountable; o participating actively (and enthusiastically) in corrective action meetings, and making error reduction a topic at other meetings; o stressing error prevention, rather than error correction; o articulating error reduction goals and assigning areas for concentration; and o being receptive to new and innovative methods, especially the suggestions of field staff for error reduction initiatives.
<p>Wide participation</p> <p>Breadth of staff participation in correction action activities may be demonstrated by:</p> <ul style="list-style-type: none"> o Statewide or regional annual meetings involving staff at all levels, from field and program or other agency support arms, to develop plans and initiatives; and o continuing communication throughout the agency both <ul style="list-style-type: none"> - from the top down, regarding error rates and error reduction goals and performance, and - from the bottom up, regarding local office initiatives, suggestions, and problems.

Exhibit 1 (continued)
ELEMENTS OF THE ERROR CONTROLS PROFILE
AND CHARACTERISTICS OF EFFECTIVE IMPLEMENTATION

	<p>Local staff participation and involvement</p> <p>The participation and involvement of local staff in corrective action activities is based on two premises:</p> <ul style="list-style-type: none"> o the local staff -- the people performing the job -- are most likely to "buy-in" to error reduction activities if those people have a meaningful say in developing those initiatives; and o for a significant proportion of errors being committed, error prevention or corrective activities tailored to local conditions, caseload demographics, and resources are more likely to be successful than Statewide initiatives that apply equally to all offices.
4. Quality Assurance Data Collection and Analysis	
	<p>Error prevention</p> <p>The pre-certification supervisory or other second party reviews prevent errors from entering the system and/or becoming Quality Control errors.</p>
	<p>Focus at the worker level</p> <p>The regularity and sample size of an on-going supervisory or other second party review process, as well as the focus on the individual worker, impact error reduction more than Quality Control or administrative reviews.</p>
	<p>Focus at the local office level</p> <p>Supervisory or other second party review provide excellent information for developing corrective actions tailored to the local office, unit, or worker level.</p>
5. Policy Development and Dissemination	
	<p>Significant involvement of time and resources to revise existing policies</p> <p>Top management recognizes the long-term benefit of error reduction in completing major revisions to policy manuals to:</p> <ul style="list-style-type: none"> o standardize policies and procedures, which facilitates training of staff; and o simplify policies, which <ul style="list-style-type: none"> - reduces the potential for both agency and client error, - makes policy implementation less dependent on the strengths of local office managers, and - for those States planning or implementing large Statewide automated management information systems, lays the foundation for accurate initial entry of existing cases and assures accurate eligibility determination and benefit calculation by the system. <p>The existing automated management information system may contain an on-line policy manual, with both on-line and hard copy dissemination of new policy. In addition to the benefits indicated above, such investment of resources is a concrete and highly visible demonstration of top management's interest in innovative approaches for wide and timely dissemination of policy information.</p>
	<p>Involvement of field staff in policy development</p> <p>Draft policy and procedural materials are reviewed by agency staff, including field staff, prior to issuance of the materials. The values of this practice to the State's error reduction activities include:</p> <ul style="list-style-type: none"> o clarification of policies prior to implementation; o demonstration of top management's commitment to communicate with and solicit/utilize input from field staff; o field staff "buy-in" to policies that they understand and have helped to shape; o use of field staff operations expertise to identify potential "glitches" in implementation; and o setting of realistic expectations for implementation, taking into consideration the operational pressures at the local office level.
	<p>Minimizing the frequency of policy releases and giving priority to error reduction</p> <p>To the extent possible, the State schedules the frequency of policy releases to minimize the burden on staff. "Routine" changes in State regulations or procedures are given lower priority than policy initiatives related to error reduction.</p>

Exhibit 1 (continued)
ELEMENTS OF THE ERROR CONTROLS PROFILE
AND CHARACTERISTICS OF EFFECTIVE IMPLEMENTATION

	<p>Ensuring understanding of and access to policy interpretations</p> <p>Once the policy/procedural material is disseminated to the field, mechanisms are put in place to ensure that the staff can implement and correctly interpret the material.</p> <ul style="list-style-type: none"> o Supervisors disseminate and discuss policy materials in unit meetings or arrange for training sessions on new policy releases. o Supervisors require that workers file new policy/procedural releases in their manuals and spot-check the manuals for completeness. o Supervisors and workers have immediate "hot-line" access to State policy experts for interpretation of new or existing policies. Policy interpretation questions-and-answers are disseminated to field staff in hard copy.
6. Training	
	<p>Pervasiveness of training</p> <p>The investment of money, staff, and time in a comprehensive, proactive training program for field staff is demonstrated in the consistent availability of:</p> <ul style="list-style-type: none"> o a standardized pre-service training curriculum for new staff, combining classroom instruction and on-the-job components, as well as hands-on practice with automated systems; o refresher skills training, such as interviewing and supervision, for experienced staff; o timely training related to new policies, tailored (when possible) to the local office; o targeted training related to State and local office error reduction initiatives; and o training on the definitions and methodologies of Quality Control, including the worker's role in preventing Quality Control errors.
	<p>Standardized core curriculum for pre-service training</p> <p>The standardization of the basic pre-service curriculum ensures that new workers:</p> <ul style="list-style-type: none"> o begin with the same essential knowledge base regarding agency policies and programs; o are able to identify and use essential tools and resources; and o understand their roles in error prevention and error reduction.
	<p>Flexibility at the local office level for in-service training</p> <p>Within the State's comprehensive training program, the field managers have flexibility in determining course content and schedule for in-service staff training. This practice:</p> <ul style="list-style-type: none"> o encourages the personal involvement of local office managers and supervisors in training course development and delivery; o ensures a local office perspective in course development, both through an understanding of local conditions and a knowledge of trainee needs; and o contributes to the fixing of accountability for error reduction performance.
	<p>Support for local office in-service trainers</p> <p>To fulfill adequately the role of trainer, the local office supervisors receive support, including some or all of the following:</p> <ul style="list-style-type: none"> o training-for-trainers, to ensure technical skills and confidence; o training packages (trainer's guides) prepared by training specialists, usually with local office input; and o access to policy or training experts for consultation regarding policy interpretation or training techniques.
7. Local Office Case Processing	
	<p>Communicating expectations</p> <p>Top managers and local managers identify a concrete error reduction practice related to case processing and communicate the reason why the practice is important, so that staff down to the individual worker level is able to articulate what the practice is and, more importantly, how their activities contribute to the goal of error reduction.</p>
	<p>Monitoring to ensure compliance</p> <p>Case reviews and supervisory or peer feedback of results focus worker attention on the requirement that compliance with the practice is essential in preventing Quality Control errors.</p>

Exhibit 1 (continued)
ELEMENTS OF THE ERROR CONTROLS PROFILE
AND CHARACTERISTICS OF EFFECTIVE IMPLEMENTATION

	<p>Feedback concerning errors and error reduction results</p> <p>Top managers and local managers go beyond enforcing the "rote" requirement that the particular practice be performed. Instead, they focus supervisor and worker attention on the substance of the requirement. In this way they use the practice as a meaningful tool for error reduction, focusing staff attention on the types of errors that occur even though the worker followed the established case processing practices.</p>
8. Error Resolution Process	
	<p>Formalized process for the review of individual Quality Control errors</p> <p>The error resolution process is highly structured, involving</p> <ul style="list-style-type: none"> o multiple levels of agency staff, including the Corrective Action Coordinator and other high level central office managers, as well as field staff down to the individual worker level; o a series of reviews or discussions of the error(s) on the case; o formal challenge to the Quality Control finding (if warranted) or correction of the error case; o written response at each level of review; and o rigid timetables and controls to ensure timely review, follow-up (if required), and reports.
	<p>Involvement of local office staff, including the worker responsible</p> <p>In addition to ensuring that the error on a given case is corrected or that incorrect error findings are rescinded, the focus of this local office review process is on error prevention. The local office manager, the unit supervisor, and the worker responsible for the case are involved in the review to determine why the error occurred and what could have been done to prevent it.</p>
	<p>Use of individual Quality Control error analyses to prevent future errors</p> <p>The formal process specifically solicits recommendations from local office staff for improvements -- for example, policy, training, or corrective action initiatives -- to prevent similar errors from occurring in the future. The results of the various error resolution reviews are analyzed and:</p> <ul style="list-style-type: none"> o assigned as action items for the appropriate central office manager; o incorporated into the Corrective Action Plan; and o discussed at Corrective Action Committee meetings as potential candidates for error reduction initiatives.
9. Management Information System	
	<p>Involvement of agency program experts and field staff in systems planning and implementation</p> <p>The benefits of involving appropriate agency program and field staff representatives in automated MIS planning and implementation activities include the following:</p> <ul style="list-style-type: none"> o development of user expertise and in-house technical expertise; o facilitation of field staff "buy-in" to the system; and o identification of training needs.
	<p>Policy definition and clarification</p> <p>The system requirement for on-line eligibility determination necessitates a comprehensive review and revision of agency policies. The resulting definition and clarification standardizes policy within the agency and eliminates many vague policy descriptions which may contribute to errors.</p>
	<p>Pre-entry case audit</p> <p>A case conversion process which utilizes a 100 percent review ensures the accuracy of existing cases prior to initial entry onto the system.</p>

C. PHASE II ACTIVITIES

Phase II consisted of two parallel activities:

- o the test and evaluation of the impact of the Error Controls Profile model in reducing case and payment error rates in three volunteer States, and
- o the design and implementation of a personal computer-based Contingency Model which a State could use to assess the impact of various management initiatives upon specific error elements or upon the overall error rate.

Data for the test of the Error Controls Profile and for the development of the Contingency Model was provided in Phase II through a quasi-experimental project design which is described in the section below. Further details on the design and methodology of the Phase II activities is contained in the report **Error Reduction in the Food Stamp Program: Assessment of the Error Controls Profile and the Contingency Model**.

1. METHODOLOGICAL DESIGN OF PHASE II ACTIVITIES

The basic goal of Phase II was to measure changes in error rates resulting from implementation of Error Controls Profile management initiatives. The project required that these impacts be measured, to the extent possible, **all other influences held constant**. Consequently, a treatment/control group quasi-experimental design was adopted. Along with a "treatment" site which implements the selected error reduction initiative, the error rate changes in a comparison "control" site were also measured. The control site data were used to "control" forces external to the impact study by measuring how the pre- and post-implementation error rates would have changed in the absence of the implemented management initiative. For example, assume that in a participating State an improving economy contributed to a sudden decline in the food stamp population causing an overall decline in the food stamp error rate. If this economic upturn just happened to coincide with the introduction of the management initiative impact study and no control site was used, the project results would attribute all the error rate decline to the implementation of the management initiative. However, using the data obtained from a comparison control site, the decline in error rates observed in the treatment site can be corrected by subtracting out the

estimated decline in the error rate that would have occurred in the absence of the management initiative implementation. This corrected error rate reduction reflects the true management initiative impact. The observed control site error rate decline provides the estimate of non-initiative decline.

For this project, the following methodological design was approved by FNS.

- o Volunteer States were recruited to participate in the study and to provide State resources consistent with the project design.
- o Treatment and control sites in the volunteer States were identified. "Treatment" sites would implement one or more Error Controls Profile factors.
- o In each site (both treatment and control) prior to the implementation of the Error Controls Profile factor, a simple random sample of Food Stamp Program cases was selected. Case reviews were performed on the sample cases to determine whether each selected case was correct or in error according to QC criteria. Site case and payment error rates based on these data were computed.
- o Each treatment site implemented its selected Error Controls Profile factor.
- o Following completion of the project implementation period (roughly the seven months from April through October, 1991), a second independent random sample of cases was selected in each of the treatment and control sites. Case reviews were again completed and site case and payment error rates at post-implementation were computed.

The resulting database contained both pre- and post-implementation case review information for both correct and error cases. The data would be used to test the statistical significance of changes in error rates from the beginning to the conclusion of the project. Since QC data would be too sparse for the evaluation purposes required by this project, the project used a QC-comparable case review methodology to obtain case characteristic data appropriate to the project.

In addition to assessing error rate changes, the database also was used to create an exploratory Contingency Model. The Contingency Model was conceptualized in the project as a personal computer application of the Lotus 1-2-3 software package, permitting the States to perform "what if" scenarios for selecting the most effective error reduction management

initiative for a particular error problem. The impact reduction parameters programmed into the model were derived from the application of an econometric regression model to the project data base.

2. PHASE II STATE SELECTION AND OPERATIONALIZATION

From a list a candidate States provided by FNS, telephone interviews were conducted to determine the characteristics of the error reduction program and the suitability of the State error rate level for the project goals. Three States volunteered to participate in Phase II: Georgia, New York, and West Virginia. Each State agreed to provide its own Project Coordinator, State staff to perform the case reviews (approximately 300 reviews per site at both pre- and post-implementation), and staff time to design and implement the State implementation plan and treatment design.

Since the Phase I States consistently demonstrated a "buy-in" to the process at all levels, it was imperative that the participating Phase II States replicate the "staff involvement" model. While MAXIMUS served as guide and advisor, staff in the Phase II sites were responsible for identifying the management initiative to implement, selecting the treatment and control sites, designing the activities to implement the initiative, communicating among layers of State staff, and monitoring progress.

States were asked to select the factors from the Error Controls Profile which they would implement during the project. Of the three participation States, two States elected to implement one Error Controls Profile factor, while the third State implemented two factors. The Error Controls Profile management initiatives selected were:

- o **Georgia: Field Staff Commitment to Error Reduction and Local Office Case Processing;**
- o **New York: Training; and**
- o **West Virginia: Corrective Action Structure and Responsibility.**

Each State also identified the sub-State jurisdictions to be assigned to treatment and control conditions. Georgia elected to use four of its larger, urban counties as the four sites required for its two management initiative design: Bibb County, Chatham County,

Dougherty County, and Muscogee County. New York selected the two local offices (the cities of Utica and Rome) in Oneida County, while West Virginia selected two of its counties: Marion County and Harrison County.

Exhibit 2 presents a description of the design of the Phase II project, including information about the treatments selected by the States participating in project, site designations, and site descriptions.

3. IMPLEMENTATION IN THE GEORGIA SITES

As Georgia selected two Error Controls Profile factors for implementation, each factor was implemented in two county sites. Georgia's county-administered system permits a great deal of autonomy to the counties. Although the Food Stamp (and other eligibility) Program workers are State employees, they answer directly to each County Director. Consequently, State office staff coordinated individual county plans to maximize comparability across treatment sites. Variations remained, however, in how the treatments were implemented between the same-treatment Georgia counties.

The implementation plan for Georgia's **Field Staff Commitment to Error Reduction** factor of the Error Controls Profile is presented in Exhibit 3. This factor was implemented in two of the State's county sites: Bibb County and Chatham County. Georgia selected this Error Controls Profile factor because of its focus on renewing and reaffirming the State's emphasis upon excellence, stating that a new emphasis on team effort and job satisfaction would increase the staff desire to perform accurately, thus enhancing the common goal of error reduction.

The implementation plan for Georgia's **Local Office Case Processing** factor of the Error Controls Profile is presented in Exhibit 4. This factor was implemented in two of the State's county sites: Bibb County and Dougherty County.

Exhibit 2
SUMMARY OF PHASE II DESIGN

	GEORGIA	NEW YORK	WEST VIRGINIA
Number of Treatments	2	1	1
Error Controls Profile Element	<ul style="list-style-type: none"> . Field Staff Commitment . Local Office Case Processing 	<ul style="list-style-type: none"> . Training 	<ul style="list-style-type: none"> . Corrective Action Structure
Site Type	County	Local Office	County
Control Site	<ul style="list-style-type: none"> . Muscogee Co. 	<ul style="list-style-type: none"> . Rome local office in Oneida Co. 	<ul style="list-style-type: none"> . Marion Co.
Treatment Sites	<ul style="list-style-type: none"> . Chatham Co. (Field Staff Commitment) . Dougherty Co. (Local Office Case Processing) . Bibb Co. (Both) 	<ul style="list-style-type: none"> . Utica local office in Oneida Co. (Training) 	<ul style="list-style-type: none"> . Harrison Co. (Corrective Action Structure)
Site Food Stamp Program Caseload (approx.)	<ul style="list-style-type: none"> . Muscogee: 8,600 . Bibb: 9,000 . Dougherty: 6,400 . Chatham: 7,800 	<ul style="list-style-type: none"> . Rome: 2,900 . Utica: 5,700 	<ul style="list-style-type: none"> . Marion: 2,900 . Harrison: 3,700
Site QC Error Rate for Food Stamp Program (estimate)	<ul style="list-style-type: none"> . Muscogee: 14.1% . Bibb: 17.8% . Dougherty: 13.0% . Chatham: 24.1% 	<ul style="list-style-type: none"> . Oneida Co.: 8.2% (Not available separately for Rome and Utica local offices) 	<ul style="list-style-type: none"> . Marion: 4.6% . Harrison: 19.9%

Exhibit 3
REPRODUCTION OF GEORGIA IMPLEMENTATION ACTIVITIES
AND SCHEDULE FOR FIELD STAFF COMMITMENT FACTOR

TOP MANAGEMENT/FIELD STAFF COMMITMENT TO ERROR REDUCTION

The initiatives under this section are designed to reduce the error rate through increased staff commitment to provide quality service delivery. Greater commitment to accuracy is viewed as a by-product of the larger goal of job satisfaction. The strategies for implementation of the initiatives increase communication between management and field staff, encourage input from field staff, and recognize field staff for the role they play in quality service delivery, including commitment to error reduction or as stated in a more positive light, increased accuracy.

**I. TO INCREASE COMMUNICATION BETWEEN TOP MANAGEMENT AND
FIELD STAFF**

Top management will increase visibility within the country by making a

Exhibit 3 (continued)
REPRODUCTION OF GEORGIA IMPLEMENTATION ACTIVITIES
AND SCHEDULE FOR FIELD STAFF COMMITMENT FACTOR

II. STAFF MORALE AND TEAM BUILDING ACTIVITIES

- o Introduce different slogans through banners and flyers each month to emphasize positive aspects of the job, to re-enforce positive attitudes, and to recognize successful error reduction measures. April, 1991 - December, 1991.
- o Introduce the concept of "Positive Wednesdays." Every Wednesday during the course of the day, while carrying out regular assigned duties, all staff are urged to verbally communicate something positive that is related to error reduction to another staff person.
- o Staff Appreciation Day - Planned activities away from work location. Activities may include team building events, skits, workshops, games, etc. Workshops would include "how to - demonstrations," (such as: "Interviewing for Accuracy"). July - August, 1991.
- o Quiz Bowl. Staff to develop questions related to food stamp policy in which there are problems. The supervisory reviews can be used to determine policy problem areas. October, 1991.

III. TO PROMOTE STAFF COMMUNICATION AND INTERACTION

- o Create a supervisor peer group structured around improving managerial skills. Group to focus on team building, managerial styles, communication and error reduction. Meetings to include guest speakers, discussions of books, articles, management practices and measures to eliminate errors. Most importantly, the participants must try different ideas which are discussed or introduced, and come back to the group to relay experiences. April, 1991.
- o Principal Supervisors or County Program Directors are to coordinate quarterly meetings for all Intake and Ongoing staff. Meeting to be centered around communication and team building activities with respect to error reduction. April, July, and November, 1991.
- o Once per quarter, unit meetings are to be away from the work location to facilitate interaction, in both a formal and an informal manner. Unit to focus on accomplishments and recognition of improvements in error reduction. May, September, and November, 1991.

Exhibit 3 (continued)
REPRODUCTION OF GEORGIA IMPLEMENTATION ACTIVITIES
AND SCHEDULE FOR FIELD STAFF COMMITMENT FACTOR

III. TO PROMOTE STAFF COMMUNICATION AND INTERACTION (continued)

- o Casework and Support Staff are to elect a council to discuss and to relate to management concerns and suggestions regarding food stamp policies, procedures and corrective action measures. April, 1991 - December, 1991.
- o Each unit selects an employee to spotlight each month until all members have been spotlighted. The unit decorates a bulletin board, etc., with information about the member, including any advice for error reduction from the employee which may highlight low error rate. This activity is not based on job performance. May, 1991.
- o The State Employee Suggestion Program will be spotlighted in the county by posters in order that all staff are aware that monetary rewards are available to employees who submit time or cost or error reduction suggestions for implementation in county offices. April, 1991.
- o The MAXIMUS Climate Audit will be disseminated to staff for completion. The survey will be used to measure staff perceptions of the error reduction process as it exists in their office. It will be done prior to implementation of the initiatives and at the end of the project.

Exhibit 4
REPRODUCTION OF GEORGIA IMPLEMENTATION ACTIVITIES
AND SCHEDULE FOR LOCAL OFFICE CASE PROCESSING FACTOR

CASE PROCESSING INITIATIVES

- All initiatives start in April, 1991.

I. ELIMINATION OF THE TURNAROUND DOCUMENT

The computer generated Turnaround Document currently used to interview recertification applicants will be replaced with a one-page form called the Recertification Document. The Recertification Document will list all of the points of eligibility which must be covered during the recertification process. The EW will document the Recertification Document with any reported changes. Additionally, the EW must review the case record to determine what information is currently used to determine eligibility. Form 296, Application for Food Stamps, must continue to be completed by the applicant at recertification. Form 121, Special Review, may be used for additional documentation. Copies of forms which will be used for the recertification process are attached. These forms will replace the current 15-page computer generated Turnaround Document. The new recertification procedure will be implemented in April, 1991. Recertification will be targeted for review in June, 1991 to determine the impact on error reduction.

Basically, it must be determined if a shortened recertification form will produce efficiency resulting in a re-allocation of existing time to complete required case actions and, therefore, reduce errors.

II. WAIVE QUARTERLY IEVS REQUIREMENTS

The Clearinghouse computer wage match, which is currently done at intake, recertification and when adding new household members, would replace the quarterly IEVS wage match. The Clearinghouse includes Department of Labor wages and unemployment compensation data. The IEVS wage match would be eliminated. IEVS Quarterly matches received after April, 1991 and ongoing through December, 1991 will not be processed by the agency. This initiative will be implemented upon approval of our waiver request by USDA FNS.

The July, 1991 Supervisory Review will target IEVS to determine the impact on error reduction.

Exhibit 4 (continued)**REPRODUCTION OF GEORGIA IMPLEMENTATION ACTIVITIES
AND SCHEDULE FOR LOCAL OFFICE CASE PROCESSING FACTOR****III. MAINTAIN CENTRAL CLAIMS FILE**

All claims information will be filed in one central claims file. No duplicate information will be maintained in the case records. Case records must be identified, on outside, as having a claim. This initiative is designed to enhance efficiency.

IV. ELIMINATE REQUIREMENT TO FILE MASS REVIEW PRINT

The client notice generated by mass reviews would be filed but not the resulting print. The client notice provides all necessary financial information used to process the change. This procedure will be implemented with mass reviews completed after April 1, 1991.

V. STANDARD SIX-MONTH CERTIFICATION PERIOD FOR HOMELESS

All homeless households are given a six-month certification period. Homeless households are given a change form to report changes upon reporting to the office to pick up benefits. The six-month certification periods are assigned to homeless households certified or recertified in April, 1991.

VI. DISREGARD DISCREPANCIES OF \$100 OR LESS ON CLEARINGHOUSE

This treatment is contingent upon approval by FNS, of a waiver request to allow the state agency to disregard all claims, regardless of claim type, of \$100.00 or less.

VII. MODIFIED METER REVIEW

All supervisory staff will complete 20 case reviews each month using the METER forms. The cases to be reviewed will be randomly selected from a listing of active cases. The cases will be reviewed to determine correctness as of a specified month. All actions and elements affecting the specific month's benefit issuance will be reviewed.

The State selected this factor because of its belief that action was needed to address the high percentage of QC errors related to agency failure to take action. Georgia anticipated that implementation of this factor, by streamlining the eligibility process and increasing efficiency of worker actions, would save 10 to 20 percent of the worker's time. Georgia believed that the time freed by the changes in case processing would permit workers to perform 20 percent more case actions on reported changes.

4. IMPLEMENTATION IN THE NEW YORK SITE

New York elected to implement the **Training** factor of the Error Controls Profile in the Utica Office of Oneida County. This initiative was selected to address, as identified in the State's expanded QC data findings, workers' difficulties in distinguishing between eligibility differences for the AFDC and Food Stamp Programs. Five training topic areas were identified to coincide with the most frequent errors among the QC error elements. New York planned mandatory monthly training sessions on each of the topic area for all Food Stamp and AFDC workers. Each of the five training sessions was approximately three hours long. For five of the project months (May, June, August, September, and October), Utica office staff members were assigned to one of the eight sessions repeated over the month's training week.

Exhibit 5 displays the training implementation plan for New York's **Training** initiative.

5. IMPLEMENTATION IN THE WEST VIRGINIA SITE

West Virginia selected the **Corrective Action Structure and Responsibility** factor from the Error Controls Profile for implementation in the treatment site of Harrison County. While West Virginia was interested in implementing several of the error reduction factors, the State decided that, chronologically, a corrective action structure would have to first be in place before changes in local office case processing could be systematically designed and evaluated for effectiveness.

Exhibit 5
NEW YORK IMPLEMENTATION ACTIVITIES FOR TRAINING FACTOR

I. HOUSEHOLD COMPOSITION

- o Definition
- o Categorical Eligibility
- o Sanctioned Household Members

II. SHELTER EXPENSES/ALLOWANCES

- o Treatment of Shelter Contributions
- o Correct Application of Utility Expense Indicators
- o Entitlement to Allowances

III. EARNED INCOME

- o Income Inclusions/Exclusions
- o Budgeting
- o Terminated Source of Income
- o Dependent Care Deductions

IV. UNEARNED INCOME

- o Types
- o Exclusions
- o Budgeting
- o Medical Deductions

V. RESOURCES

- o Types
- o Value Assessment
- o Included/Excluded: AFDC vs. Food Stamps

Exhibit 6 lists the four facets of the **Corrective Action Structure and Responsibility** factor in West Virginia. To maximize effectiveness, the State targeted its actions at two levels. The first target was State-level actions, represented by the first three activities in Exhibit 6. The second target was local-level operations, represented by the fourth activity in Exhibit 6. Generally, activities at the State and local level were fairly independent. However, several error reduction initiatives suggested by the project's treatment site resulting in waiver requests which were approved (with conditions) by the federal government at the end of the project implementation period.

D. ERROR CONTROLS PROFILE ASSESSMENT

The Error Controls Profile assessment involved examining changes in case and payment error rates from pre-implementation to post-implementation. Data for these analyses were available from the project's case review activities. The counts of completed case reviews by State site are identified in Exhibit 7.

Exhibit 6 WEST VIRGINIA IMPLEMENTATION ACTIVITIES FOR CORRECTIVE ACTION STRUCTURE AND RESPONSIBILITY FACTOR

- I. RECONSTITUTE STATEWIDE CORRECTIVE ACTION PANEL**
- II. REVITALIZE PROGRAM SPECIFIC TASK FORCE**
- III. INCORPORATE ERROR REVIEW COMMITTEE**
- IV. DEVELOP COUNTY LEVEL CORRECTIVE ACTION COMMITTEE IN TREATMENT SITE**

Exhibit 7
NUMBER OF COMPLETED CASE REVIEWS BY STATE SITE

	Pre-Implementation	Post-Implementation
Georgia - Total	1,280	1,229
Bibb County	295	310
Chatham County	327	288
Dougherty County	342	328
Muscogee County	316	303
New York - Total	636	579
Rome Office	316	286
Utica Office	320	293
West Virginia - Total	592	640
Marion County	299	320
Harrison County	293	320

Exhibit 8 displays the error rates for treatment and control sites as measured by the case reviews at pre- and post-implementation. Asterisks are included with post-implementation rates when the post implementation rates are significantly different from the pre-implementation rates at the 90 percent confidence level. A "C" following a site name identifies that site as a control site.

1. ERROR CONTROLS PROFILE RESULTS IN GEORGIA

In Georgia, all counties, including the control county, experienced case error rate declines: from 18.0 percent to 11.3 percent in Bibb County; from 22.0 percent to 19.4 percent in Chatham County; from 25.7 percent to 17.1 percent in Dougherty County; and from 25.0 percent to 22.1 percent in Muscogee County. Declines were statistically significant in two of the counties -- Bibb and Dougherty Counties, even after controlling for the observed decline in the Muscogee County control site. Note that these same two counties (Bibb and Dougherty) both implemented the Local Office Case Processing factor of the Error Controls Profile.

Exhibit 8
PRE- AND POST-IMPLEMENTATION CASE
AND PAYMENT ERROR RATES BY STATE PROJECT SITE

	CASE ERROR RATE		PAYMENT ERROR RATE	
	Pre	Post	Pre	Post
Georgia				
Bibb County	18.0%	*11.3%	5.9%	4.1%
Chatham County	22.0%	19.4%	6.9%	5.1%
Dougherty County	25.7%	*17.1%	7.4%	*3.9%
Muscogee County (C)	25.0%	22.1%	7.7%	4.5%
New York				
Utica Office	15.0%	17.1%	7.0%	6.6%
Rome Office (C)	16.5%	17.1%	4.4%	4.8%
West Virginia				
Harrison County	21.2%	*14.7%	6.5%	6.7%
Marion County (C)	16.0%	17.2%	6.3%	6.8%

Similarly for payment error rates, all counties in Georgia also experienced a decline in payment error rates; from 5.9 percent to 4.1 percent in Bibb County; from 6.9 percent to 5.1 percent in Chatham County; from 7.4 percent to 3.9 percent in Dougherty County; and from 7.7 percent to 4.5 percent in Muscogee County. Dougherty County was the only county to experience an absolute payment error rate decline larger than the decline in the Muscogee County control site, and was also the only county to exhibit a statistically significant (at the 90 percent level of confidence) payment error rate reduction at post-implementation.

The distribution of errors among the QC error elements differed slightly pre- versus post-implementation. In all four counties at post-implementation, compared to pre-implementation, a smaller proportion of errors were in the categories of wages and salaries (element 311), unemployment compensation (element 334), and contributions/in-kind income (element 342). On the other hand, all four counties saw an increase in the proportion of errors in the category of household composition (element 150).

All three of the treatment counties experienced an increase in the proportion of errors which were agency-caused. However, the counties implementing the **Local Office Case Processing** treatment had much smaller increases in the proportion of agency-caused errors than did the county implementing **Field Staff Commitment to Error Reduction**. The analysis supports a conclusion that the **Field Staff Commitment to Error Reduction** factor, as implemented by Chatham County, concentrated more on morale enhancement than error reduction, and may have taken away time from worker case processing, thereby detrimentally affecting agency-caused error levels.

2. ERROR CONTROLS PROFILE RESULTS IN NEW YORK

Exhibit 8 indicates that case error rates both in the treatment and control site in New York increased, though the increase was not statistically significant. The types of errors that increased varied in the two offices, with Utica (the treatment site) increasing in under-issuances and decreasing in overissuances, and with Rome (the control site) increasing in ineligible issuances and decreasing in underissuances.

The payment error rate in the control site Utica decreased, while the payment error rate in Rome increased. Again, however, neither payment error rate change was statistically significant.

Despite the lack of significant error rate declines in the Utica office, the data indicate a consistent measurable impact related to the New York training. Recall that the training sessions in the treatment site involved five error element areas: household composition, earned income, unearned income, shelter, and resources. For all these error element areas except one (shelter), the treatment site which received training in these areas had a smaller proportion of errors at post-implementation than did the control site. Further, an additional analysis divided the post-implementation cases into those which were worked on prior to a specific training session and those that were worked on subsequent to that same training session. Then the pre- and post training error rates by error elements covered by that training were compared. There was a reduction in three (household

composition, shelter, and unearned income) of the four categories where this analysis applied.

As the New York training initiative was well-designed and well-executed, the lack of statistically significant error rate declines is unexpected. However, because of the nature of the treatment -- a series of training sessions conducted monthly over the implementation period -- it is believed that the short duration of the implementation period affected the New York error reduction results. In fact, the training "treatment," particularly for the last several training sessions, permitted only a minimum of time for its effect to be reflected in the worked cases. If the study had been able to extend the implementation period beyond seven months, it is believed that the error rate reduction in New York would be significantly larger.

3. ERROR CONTROLS PROFILE RESULTS IN WEST VIRGINIA

Exhibit 8 demonstrates a contrasting pattern of error reduction in the two sites of West Virginia. Between pre- and post-implementation, Harrison County, the treatment site, experienced a large case error rate decline, while Marion County, the control site, experienced a case error rate increase. Looking solely at the case error rate decline in the treatment site of Harrison County, it could not be established at the 90 percent confidence level that the case error rate at post-implementation was significantly different from the pre-implementation case error rate. However, at slightly lower level of precision (85 percent confidence level), the case error rate at post-implementation was significantly lower than the pre-implementation case error rate.

A second analysis compared the treatment county case error rate reduction of 6.5 percentage points with the control county case error rate increase of 1.2 percentage points. The error rate decline in the Harrison County treatment site was determined to be statistically different from the Marion County control site error rate increase at the 90 percent level of confidence.

The payment error rates increased slightly in both the treatment and control counties. However, neither increase was statistically significant.

procedures for the Contingency Model regressions is found in the report **Error Reduction in the Food Stamp Program: Assessment of the Error Controls Profile and the Contingency Model** .

1. THE CONTINGENCY MODEL SOFTWARE APPLICATION

This tool is in the form of a Lotus 1-2-3 program computer diskette. The accompanying **User's Guide** details the Contingency Model program, and provides documentation and the programmed estimates of error reduction impact developed from the data collected by the participating project States.

At the beginning of the project, the use of a computerized platform for the Contingency Model was not envisioned. However, through the nine site visits of Phase I, as well as the intensive on-site work with the Phase II sites, it was learned that States desired practical assistance with error reduction practices which could be tailored to meet their individual State priorities, needs, and circumstances. A personal computer application packaged in an easy-to-use format requiring a minimum investment of user time was identified as the best approach. The Lotus 1-2-3 language was selected for this application since this software has a good reputation and is widely available. It incorporates a powerful macro language that permitted a menu-driven operation which is "user-friendly." Lotus 1-2-3 is also a software package familiar to State staffs.

Using Lotus 1-2-3 to access the Contingency Model, the program begins automatically. The user is greeted with the Contingency Model Welcome Screen, displayed in Exhibit 9. Following on-screen instructions, the user is prompted through a series of questions to enter the date to be recorded on any printed reports and to confirm the unit of analysis for any error rate data previously entered by the user into the model.

With these housekeeping functions completed, the Contingency Model Main Menu, depicted in Exhibit 10, appears. The seven user functions are listed for selection. These functions are described below.

Exhibit 9 CONTINGENCY MODEL WELCOME SCREEN

FOOD STAMP PROGRAM CONTINGENCY MODEL

A model to address the impact of
management initiatives on
Food Stamp Quality Control Errors

Prepared by MAXIMUS, Inc., for the

Office of Analysis and Evaluation
Food and Nutrition Service
U.S. Department of Agriculture

February 1992

Press ENTER to continue.....

Exhibit 10 CONTINGENCY MODEL MAIN MENU

A1:
Menu

Management QC_Error Data Parameter Impact Report Exit

Select Management Initiative to Target

	A	B	C	D	E	F	G
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

Select the first letter of the desired menu choice:

M
Q
D
P
I
R
E

---->

Management Initiative Selection
QC Error Element Selection
Data Input for Observed Error Rate
Parameter Modification
Impact Modifier Variables
Report on Contingency Model
Exit from Contingency Model; Return to 1-2-3

Date and Time
CMD

8375-9-108-jr

- 32 -

8375-C

- o **Management:** select a error reduction management initiative for "what if" analysis;
- o **QC-Error:** select whether the analysis is to be performed on the total error rate, or on the error rate associated with a specific QC error element;
- o **Data:** enter current State or local error rate data to permit the model to assess error reduction potential;
- o **Parameter:** quantify an estimate of the impact of an error reduction management initiative by entering or changing the model's error reduction parameters for a selected management initiative;
- o **Impact:** create impact modifier variables which modify error reduction impacts for a management initiative;
- o **Report:** estimate the impact of a selected management initiative on the error rate and print an analysis report; and
- o **Exit:** save the parameter or data settings for later retrieval or manipulation, and exit the Contingency Model program.

There are nine management initiatives programmed into the Contingency Model which correspond to the nine Error Controls Profile factors.

2. CONTINGENCY MODEL PARAMETER ESTIMATION METHODOLOGY

The error reduction parameters entered into the Contingency Model under its Parameter function were derived from the results of econometric modeling. In this type of model, there are two factors.

First, a **dependent variable** measures the outcome event which the model seeks to explain. Second, **independent (or explanatory) variables** are assumed to have a specific impact upon the dependent variable being examined.

The regression methodology estimates a set of explanatory parameters, called **coefficients**, which describes the relationship between each explanatory variable and the dependent variable specified in the equation. These coefficients from the regression model are the statistics presented in the exhibits of this section. A common sense interpretation of

the regression coefficient is that for each one unit change in the independent variable, the dependent variable changes one unit in the direction of its estimated sign (positive or negative).

The model formulation used for estimating the Contingency Model was defined as:

$$ER = a + b_1 * C_{t_2} + b_2 * T_{t_1} + b_3 * T_{t_2} + b_4 * D$$

where:

- o "ER" is the dependent variable (error rate);
- o "a" is the regression intercept, or constant term;
- o the array of b variables (b_1, b_2, \dots) is the regression coefficient;
- o " C_{t_2} " is a dichotomous variable coded equal to 1 if the observation was in the control group at time t_2 (post-implementation) and coded equal to 0 otherwise;
- o " T_{t_1} " is a dichotomous variable encoded equal to 1 if the observation was in the treatment group at time t_1 (pre-implementation) and coded equal to 0 otherwise;
- o " T_{t_2} " is a dichotomous variable coded equal to 1 if the observation was in the treatment group at time t_2 (post-implementation) and coded equal to 0 otherwise; and
- o "D" is an array of explanatory variables describing the review case demographics, such as income or household composition.

The impact of the management strategy was measured in the following manner.

- o The regression coefficient b_1 captured the effect on the error rate of differences between the control site at pre- and post-implementation.
- o The difference between the regression coefficients b_2 and b_3 measured the unadjusted effect of the implemented Error Controls Profile factor -- the effect of the treatment variable without controlling for differences between the treatment and control sites.
- o The difference between the regression coefficients b_2 and b_3 minus the regression coefficient b_1 measured the adjusted effect of the implemented Error Controls Profile factor -- the effect of the treatment variable controlling for differences between treatment and control sites.

3. RESULTS OF CONTINGENCY MODEL PARAMETER ESTIMATION

In this project two dependent variables were used: the case error rate and the payment error rate. These variables were defined as described below.

- o The case error rate, termed **INERROR** in the regression specification, was coded equal to 0 (zero) if the reviewed case was found to be correct, and coded equal to 1 (one) if the reviewed case was found to be in error.
- o The payment error rate, termed **DECIMAL** in the regression specification, was computed as the total dollars in error for the case, divided by the total food stamp allotment amount for the case. This variable ranged in value from 0.00 (a correct case) to 1.00 (an error case with a 100 percent overissuance).

Two formulations of the independent variable set were used.

- o A **reduced form** utilized only the treatment and control dichotomous variables (the C_2 , T_{11} , and T_2 variables of the general equation appearing earlier).
- o An **expanded form** additionally included the set of explanatory variables describing the review case characteristics, including household size, household head age, types of income received, and time since last case action. A complete listing of these independent variables appears in the report **Error Reduction in the Food Stamp Program: Assessment of the Error Controls Profile and the Contingency Model**.

The error reduction parameters entered into the Contingency Model program were derived from estimated regression coefficients. Exhibit 11 summarizes the error reduction impacts for the case and payment error rates produced by the two (reduced and expanded) Contingency Model regressions. The numbers appearing in the exhibit were obtained by computing the difference between the treatment impacts of post-implementation and pre-implementation, factoring out the effect of the control site. This computation involved the subtraction of both the control site post-implementation coefficient and the treatment site pre-implementation coefficient from the treatment site post-implementation coefficient, as described in the model formulation presented in the preceding section. If this computation resulted in a negative number, the model estimated an error reduction impact.

Exhibit 11
SUMMARY OF TREATMENT EFFECTS CONTROLLING FOR
CONTROL GROUP OUTCOMES

	CASE ERROR RATE (INERROR DEPENDENT VARIABLE)		PAYMENT ERROR RATE (DECIMAL DEPENDENT VARIABLE)	
	Reduced form	Expanded form	Reduced form	Expanded form
Field Staff Commitment to Error Reduction	.0031	-.0074	.0178	.0124
Local Office Case Processing	-.0577	-.0378	-.0172	-.0221
Both Field Staff Commitment to Error Reduction and Local Office Case Processing	-.0379	-.0193	.0027	.0009
Training	.0140	.0321	-.1750	.0023
Corrective Action Structure and Responsibility	-.0761	-.0438	-.0013	.0138

General observations from the regression results fall into four categories:

- o Overall, the case error rates had larger reductions than did payment error rates. For example, for West Virginia's **Corrective Action Structure and Responsibility** under the reduced model, the treatment impact estimated for the case error rate was a reduction of 7.61 percentage points, while the treatment impact for the payment error rate was a reduction of 4.38 percentage points. These results are consistent with the Error Controls Profile analyses described in the Section C.
- o The reduced form displayed more management initiative error reduction than did the expanded regression form with its case characteristics variables. For example, for Georgia's **Local Office Case Processing**, the treatment impact for the payment error rate reduced form was a reduction of 3.78 percentage points, while the

treatment impact for the payment error rate expanded form was a reduction of 2.21 percentage points.

- o Error reduction impacts were not found for all the Error Controls Profile treatments. Only one treatment -- Georgia's **Local Office Case Processing** -- was estimated to reduce both case and payment error rates for both dependent variable equations (INERROR and DECIMAL). For the case error rate measured by the INERROR dependent variable, the estimated reduction was 5.77 percentage for the reduced form and 3.78 percentage points for the expanded form. The estimated DECIMAL dependent variable reductions were 1.72 percentage points for the reduced form and 2.21 percentage points for the expanded form.
- o The lack of error reduction findings for the New York **Training** and Georgia **Field Staff Commitment to Error Reduction** management initiatives was disappointing. However, as cited earlier, explanations for the "no error reduction" were suggested by the analysis. For **Training**, both the short implementation period and the declining economic environment in the project county appear to have flattened the effect of the management initiative.

For **Field Staff Commitment to Error Reduction**, the implementation was directed more at staff morale and communication, rather than at error reduction. There remains a real concern that **Field Staff Commitment to Error Reduction**, as executed, did not meet the **Error Controls Profile** characteristics for this factor as delineated in Exhibit 1. Additional discussion of these issues is found in the following section.

F. CONCLUSIONS AND OBSERVATIONS

The experience gained from conducting this project, combined with the findings of both Phase I and Phase II, provided new insight into the mechanisms of error reduction associated with management initiatives. A range of outcomes was captured by applying the project methodology, and these are summarized above. The conclusions and observations recorded below extend the formal analysis, by highlighting the importance and implications of both directly and indirectly measured outcomes.

- o **All treatment sites reported changes as a result of project participation.**

Unsolicited, site staff reported changes in a variety of measures, including attitudes, processes, or error awareness. While these findings are not quantifiable, it remains clear that implementation of the Error Controls Profile had positive impacts upon the treatment sites. The most commonly mentioned influences included an increased awareness of error reduction issues, heightened morale, worker empowerment, a new perspective on local office roles in the corrective action process, and a revitalized interest in implementing new or continuing with project error reduction practices.

- o **Error reduction impacts can only be assured and maximized when a Error Controls Profile factor is implemented in a manner consistent with the characteristics documented in Exhibit 1.**

To be effective, management initiatives designed by the State or local agency must contain an explicit error reduction focus, direction, and intent. To one extent or another, most treatment sites in the project deviated from the ideal, and error reduction impacts were affected. For example, the treatment **Field Staff Commitment to Error Reduction** as implemented in this project did not incorporate the required focus on error reduction issues. Additionally, **Corrective Action Structure and Responsibility** as implemented in this project did not effectively deliver State-level corrective action attention and encouragement to staff at the treatment site. As a result, caution is recommended in interpreting projects findings as accurate reflections of Error Controls Profile impacts for these factors.

- o **In practice, the Error Controls Profile factors "bleed" into each other, such that effective implementation in one area unavoidably launches activity under other Error Controls Profile factors.**

The events and experiences of the treatment sites underscore that the Error Controls Profile factors are intertwined. Recall from Phase I results that these nine factors were present in all or most of the sites studied. The delineations between the factors are more descriptive than exclusionary, and their delineation assists in organizing the corrective action environment. However, what matters for error reduction is the comprehensiveness of an error reduction vision. For example, **Local Office Case Processing** as

implemented in this project also introduced activity in three additional Error Controls Profile factors:

- . **Corrective Action Structure and Responsibility** (waivers);
- . **Quality Assurance Data Collection** (the MAXIMUS METER case review system); and
- . **MIS modifications** (homeless recertification program).

Training, as implemented in this project, promoted county interest in development of a local training staff position, with resulting site activity in **Top Management Commitment**, **Field Staff Commitment**, and **Local Office Case Processing**.

- o **The level of error reduction depends on who, how, and the length of implementation.**

The impact obtained from implementation is a direct reflection of the "buy-in" of State and local staff, the consistency between the management initiative and the characteristics described in Exhibit 1, and the timing of assessment. The implementation period in the Phase II treatment sites was approximately seven months: from April, 1991 until October, 1991. If the project implementation period were extended, enhanced error reduction impacts could be expected both because of:

- . the direct impact of the treatment itself, and
- . the indirect impact of the treatment in providing an environment conducive to new corrective action activities and new error reduction attitudes.

The inability to produce a greater reduction in error rates from the training initiative is likely due in large part to the short project implementation period.

- o **The economic and social environment will influence error reduction results.**

The economic recession in 1991 changed the nature of the food stamp caseload and the local agency over the Phase II implementation period. Analysis detailed in the report **Error Reduction in the Food Stamp Program: Assessment of the Error Controls Profile and the Contingency Model** documents these case characteristic and economic changes. While further analysis of these impacts is needed, the results indicate that economic decline during the project period was most dramatic in the New York sites, where the treatment measured least impact. Conversely, economic decline during the project period was the

least noticeable in Georgia, where the project impact was greatest. The Contingency Model program, with its impact modifier function, anticipates the user's need to adjust error reduction impacts for external economic or program factors.

- o **The Error Controls Profile and Contingency Model are innovative first steps in a methodology to formalize the impacts on error rates of management initiatives.**

As cited above, the error reduction impacts measured in this project were dependent upon the specific activities, the rigor and enthusiasm of implementation, and the time period between implementation and assessment. Another State adopting these same Error Controls Profile factors can expect to achieve different outcomes. The estimates of error reduction from the analyses and the error reduction parameters programmed into the Contingency Model should be considered as features to expand this methodology in error reduction work, rather than constraints inhibiting this methodology as a management tool. A State or local office is encouraged to customize the Contingency Model impact parameters to reflect more closely its own circumstances, and then to share with FNS and other States changes on the predictive power of the model. Estimates of appropriate parameter values can be derived from many sources, including:

- . previous first-hand experience with the management initiative,
- . descriptions of the management initiative from other individuals or States with first-hand experience,
- . estimates of effectiveness from evaluation data,
- . statistical analyses, or
- . "gut" reactions.

The analyses of this report, as well as the Contingency Model tool, present exploratory methodologies now available to States and local offices for experimentation, refinement, and further investigation to measure the impacts of management actions on State QC error performances.